

403J and 403F Electric Power Engines

Power range 1500 rpm	6-9.5 kW (engine gross power)
Power range 1800 rpm	5.1-14 kW (engine gross power)
Emissions	EU Stage V/U.S. EPA Tier 4 Final

The Perkins® 400 Series engine family continues to set new standards in the compact engine sector. Developed alongside customers to fulfil their needs in the generator set sector, they have been designed to comply with stringent emission standards for the EU and USA.

The 403 product range offers highly compact Perkins electro units and electropaKs to provide robust 3 cylinder diesel engines designed to provide economic and durable operation for prime power applications, hitting the key power nodes required by the power generation industry.



Features and Benefits

- **Maximised productivity** by achieving key power nodes with clean rapid starting in all conditions whilst delivering impressive steady state and transient response. Options between EU Stage V products for the EU mobile generator set sector and U.S. EPA Tier 4 Final products for the US mobile generator set sector ensures flexibility for our customers tailored to their needs.
- The 400 Series offers a range of mechanical engines that are designed to be compact, simple to run under all conditions and easy to maintain. Some features include spin-on filters and cassette-type fuel injection pumps for **ease of integration and service accessibility**.
- The 400 Series mechanical engine range offers optimised fuel consumption and low oil consumption whilst meeting the Stage V and Tier 4 Final emissions standards; all delivered from a reliable mechanical engine to **minimise cost of ownership**.
- Perkins engines are designed and developed with our customer in mind. Keeping service cost to a minimum ensures **low periodic running costs**. This is achieved through 500 hour service intervals for oil and fuel as standard under all operating conditions.
- The **long productive life** of our products is supported through the Perkins 12 month warranty as standard for prime power applications, and the 1500 hour or two year emissions warranty. For further peace of mind, there is also the option to extend the warranty period through **Perkins® Platinum Protection**. Contact your local distributor or visit www.perkins.com/platinumprotection.
- Perkins takes pride in manufacturing all products globally to the same **high quality standard**. All of our products are manufactured in world class facilities to ensure highest quality for your peace of mind.

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Specification

	Model				
	403J-07G	403F-07G	403J-11G	403F-11G	403F-15G
Emissions certification	Stage V	Tier 4 Final	Stage V	Tier 4 Final	Tier 4 Final
Configuration	Electro unit		ElectropaK		ElectropaK
Cylinders	3		3		3
Displacement, litres (in ³)	0.7 (46.5)		1.1 (69)		1.5 (91)
Aspiration	Naturally aspirated				
Bore and stroke, mm (in)	67 × 72 (2.6 × 2.8)		77 × 81 (3.0 × 3.2)		84 × 90 (3.3 × 3.5)
Combustion system	Mechanical indirect injection				
Compression ratio	23.5:1		23:1		22.5:1
Exhaust aftertreatment	N/A				
Rotation (viewed from flywheel)	Anti-clockwise				
Total lubricating oil capacity, litres (US gal)	3.1 (0.8)		4.9 (1.3)		6.0 (1.6)
Cooling system	Watercooled				
Total coolant capacity, litres (US gal)	2.6 (0.7)		5.2 (1.4)		6.0 (1.6)

Technical Information

Model	Speed rpm	Type of Operation	Engine Power		Typical Generator Output* (Net)		Prime Fuel Consumption			
			Gross	Net			110%	100%	75%	50%
			kW (hp)	kW (hp)	kVA	kWe	g/kWh	g/kWh	g/kWh	g/kWh
403J-07G	1500	Prime	6.0 (8.0)	5.4 (7.2)	5.8	4.7	254	253	274	377
		Standby	6.6 (8.9)	5.9 (7.9)	6.4	5.1				
403F-07G	1800	Prime	5.1 (6.8)	5.0 (6.7)	5.4	4.3	-	259	-	-
		Standby	5.6 (7.5)	5.5 (7.4)	5.9	4.7				
403J-11G	1500	Prime	8.6 (11.5)	8.4 (11.3)	9.0	7.2	261	252	258	286
		Standby	9.5 (12.7)	9.3 (12.5)	10.0	8.0				
403F-11G	1800	Prime	8.9 (11.9)	8.5 (11.4)	9.2	7.4	252	255	267	308
		Standby	9.8 (13.1)	9.4 (12.6)	10.2	8.2				
403F-15G	1800	Prime	12.6 (16.9)	12.4 (16.6)	13.5	10.8	258	261	275	320
		Standby	14 (18.8)	13.8 (18.5)	15.1	12.1				

*Generator powers are typical and based on typical alternator efficiencies and a power factor (cos θ) or 0.8.

Information in this document is substantially correct at time of printing and may be altered subsequently. Photographs are for illustrative purposes only and may not reflect final specification. Final weight and dimensions will depend on completed specification. Information subject to selected configuration, and subject to change without notice. All data based on operation to ISO 3046/1:2002 standard reference conditions. 100015-EN-01 (01/24) Produced in England ©2024 Perkins Engines Company Limited.

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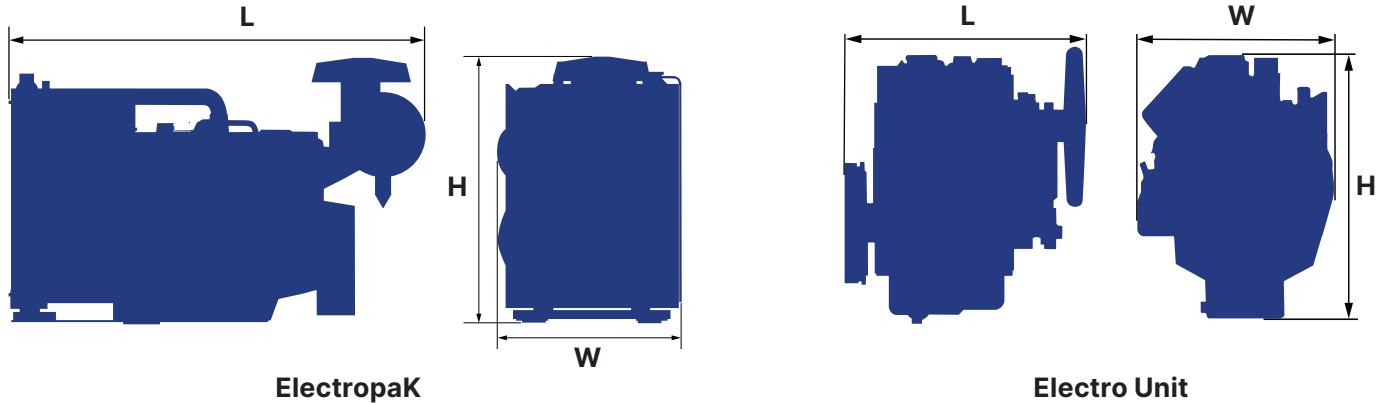
Standard Equipment

	Model				
	403J-07G	403F-07G	403J-11G	403F-11G	403F-15G
Electro unit or electropaK	Electro unit	Electro unit	ElectropaK	ElectropaK	ElectropaK
Radiator fitted	✘	✘	✓	✓	✓
Fuel filter, engine mounted	✓	✓	✓	✓	✓
Water separator	N/A	N/A	✓	✓	✓
Fuel priming pump (manual/electric)	Manual	Manual	Both available	Both available	Both available
Fuel cooler (not required for most installations)	N/A	N/A	N/A	N/A	N/A
Air filter, engine mounted	✓	✓	✓	✓	✓
Engine ECM, engine mounted	N/A	N/A	N/A	N/A	N/A
Wiring harness to ECM	N/A	N/A	N/A	N/A	N/A
Wiring harness (all connectors to single customer interface)	N/A	N/A	N/A	N/A	N/A
Starter motor	✓	✓	✓	✓	✓
Battery charging alternator	✓	✓	✓	✓	✓
Flywheel housing	✓	✓	✓	✓	✓
Flywheel	✓	✓	✓	✓	✓
Fan	✓	✓	✓	✓	✓
Fan guard	✘	✘	✓	✓	✓
Temperature and oil pressure for automatic stop/alarm configurable	✓	✓	✓	✓	✓

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Engine Package Weights and Dimensions



	Model				
	403J-07G	403F-07G	403J-11G	403F-11G	403F-15G
Configuration	Electro unit		ElectropaK		ElectropaK
Dimensions, H x L x W, mm (in)	528 × 509 × 376 (20.8 × 20 × 14.8)		700 × 776 × 449 (27.6 × 30.6 × 17.7)		793 × 805 × 473 (31.2 × 31.7 × 18.6)
Dry weight, kg (lb)	71 (157)		129 (284)		197 (434)

Prime power: Power available at variable load in lieu of a main power network. Overload of 10% is permitted for one hour in every 12 hours of operation.

Standby (maximum): Power available at variable load in the event of a main power network failure. No overload is permitted.